

IN THE CLAIMS

Please cancel Claims 1, 10, and 19 without prejudice and without disclaimer of subject matter.

Please amend Claims 2, 5-9, 11, and 14-18, and add new Claims 20 and 21, to read as follows (a version of those claims, marked to show the changes, is appended):

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2. (Twice Amended) The apparatus according to one of claims 6 or 7, wherein said comparison means includes computation means for computing degree of similarity between the scene-change frame and the image that has been designated by said designation means, and

wherein said scene extraction means extracts the scene corresponding to said image based upon results of computation performed by said computation means.

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5. (Amended) The apparatus according to one of claims 6 or 7, wherein said designating means designates a pattern image that corresponds to any of a leading, intermediate or final frame of a scene that is the object of a search.

6. (Amended) An image processing apparatus for processing a moving picture, comprising:

frame extraction means for extracting frames constituting an entered moving picture;

discrimination means for discriminating a scene change by
comparing frames extracted by said frame extraction means;

storage means for storing scene-change information relating to the
scene change discriminated by said discrimination means;

designating means for designating an image that corresponds to a
scene that is the object of a search;

comparison means for comparing a scene-change frame, which is
obtained by referring to the scene-change information that has been stored in said storage
means, and the image that has been designated by said designation means;

scene extraction means for extracting a scene that corresponds to the
image based upon a result of the comparison performed by said comparison means; and

output means for editing scenes that have been extracted by said
scene extraction means and combining these extracted scenes into a single moving picture,
wherein said designating means is capable of designating a number
of scenes to be extracted.

7. (Amended) An image processing apparatus for processing a moving
picture, comprising:

frame extraction means for extracting frames constituting an entered
moving picture;

discrimination means for discriminating a scene change by
comparing frames extracted by said frame extraction means;

storage means for storing scene-change information relating to the scene change discriminated by said discrimination means;

designating means for designating an image that corresponds to a scene that is the object of a search;

comparison means for comparing a scene-change frame, which is obtained by referring to the scene-change information that has been stored in said storage means, and the image that has been designated by said designation means;

scene extraction means for extracting a scene that corresponds to the image based upon a result of the comparison performed by said comparison means; and

output means for editing scenes that have been extracted by said scene extraction means and combining these extracted scenes into a single moving picture, wherein said designating means is capable of designating the time of a scene to be extracted.

8. (Amended) The apparatus according to claim 6, wherein said designating means is capable of designating a number of scenes to be extracted, with regard to frames prior to and with regard to frames on and after a frame corresponding to the pattern image.

9. (Amended) The apparatus according to claim 7, wherein said designating means is capable of designating time of a scene to be extracted, with regard to frames prior to and with regard to frames on and after a frame corresponding to the pattern image.

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11. (Twice Amended) The method according to one of claims 15 or 16,
wherein said comparison step includes a computation step, of computing degree of
similarity between the scene-change frame and the image that has been designated in said
designation step, and

wherein said scene extraction step includes extracting the scene
corresponding to the image based upon results of computation performed in said
computation step.

14. (Twice Amended) The method according to one of claims 15 or 16,
wherein said designating step includes designating a pattern image that corresponds to any
of a leading, intermediate or final frame of a scene that is the object of a search.

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15. (Twice Amended) An image processing method for processing a
moving picture, comprising:

a frame extraction step, of extracting frames constituting an entered
moving picture;

a discrimination step, of discriminating a scene change by
comparing frames extracted in said frame extraction step;

a storage step, of storing scene-change information relating to the
scene change discriminated in said discrimination step;

a designating step, of designating an image that corresponds to a
scene that is the object of a search;

a comparison step, of comparing a scene-change frame, which is obtained by referring to the scene change information that has been stored in said storage step, and the image that has been designated in said designation step;

a scene extraction step, of extracting a scene that corresponds to the image based upon a result of the comparison performed in said comparison step; and

an output step, of editing scenes that have been extracted in said scene extraction step and combining these extracted scenes into a single moving picture,

wherein said designating step includes designating a number of scenes to be extracted.

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16. (Twice Amended) An image processing method for processing a moving picture, comprising:

a frame extraction step, of extracting frames constituting an entered moving picture;

a discrimination step, of discriminating a scene change by comparing frames extracted in said frame extraction step;

a storage step, of storing scene-change information relating to the scene change discriminated in said discrimination step;

a designating step, of designating an image that corresponds to a scene that is the object of a search;

a comparison step, of comparing a scene-change frame, which is obtained by referring to the scene change information that has been stored in said storage step, and the image that has been designated in said designation step;

a scene extraction step, of extracting a scene that corresponds to the image based upon a result of the comparison performed in said comparison step; and
an output step, of editing scenes that have been extracted in said scene extraction step and combining these extracted scenes into a single moving picture, wherein said designating step includes designating the time of a scene to be extracted.

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17. (Twice Amended) The method according to claim 15, wherein said designating step includes designating a number of scenes to be extracted, with regard to frames prior to and with regard to frames on and after a frame corresponding to the pattern image.

18. (Twice Amended) The method according to claim 16, wherein said designating step includes designating time of a scene to be extracted, with regard to frames prior to and with regard to frames on and after a frame corresponding to the pattern image.

Please add Claims 20 and 21 as follows:

20. (New) A computer-readable memory storing program code of image processing for processing a moving picture, the memory including:
program code of a frame extraction step, of extracting frames constituting an entered moving picture;

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program code of a discrimination step, of discriminating a scene change by comparing frames extracted in said frame extraction step;

program code of a storage step, of storing scene change information relating to the scene change discriminated in said discrimination step;

program code of a designating step, of designating an image that corresponds to a scene that is the object of a search;

program code of a comparison step, of comparing a scene-change frame, which is obtained by referring to the scene-change information that has been stored in said storage step, and the image that has been designated in said designation step;

program code of a scene extraction step, of extracting a scene that corresponds to the image based upon result of the comparison performed in said comparison step; and

program code of an output step, of editing scenes that have been extracted in said scene extraction step and combining these extracted scenes into a single moving picture.

wherein said designating step includes designating a number of scenes to be extracted.

21. (New) A computer-readable memory storing program code of image processing for processing a moving picture, the memory including:

program code of a frame extraction step, of extracting frames constituting an entered moving picture;

program code of a discrimination step, of discriminating a scene change by comparing frames extracted in said frame extraction step;

program code of a storage step, of storing scene change information relating to the scene change discriminated in said discrimination step;

program code of a designating step, of designating an image that corresponds to a scene that is the object of a search;

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program code of a comparison step, of comparing a scene-change frame, which is obtained by referring to the scene-change information that has been stored in said storage step, and the image that has been designated in said designation step;

program code of a scene extraction step, of extracting a scene that corresponds to the image based upon result of the comparison performed in said comparison step; and

program code of an output step, of editing scenes that have been extracted in said scene extraction step and combining these extracted scenes into a single moving picture,

wherein said designating step includes designating the time of a scene to be extracted.

REMARKS

Claims 2, 5-9, 11, 14-18, 20, and 21 are presented for examination. Claims 2, 5-9, 11, and 14-18 have been amended to define still more clearly what Applicant regards as his invention. Claims 1, 10, and 19 have been canceled without prejudice or disclaimer of subject matter. Claims 20 and 21 have been added to assure Applicant of a